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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,814	07/10/2001	Lassi Hippelainen	975.348USW1	7875

32294 7590 12/31/2003

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EXAMINER

LEE, CHI CHUNG

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 12/31/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/901,814

Applicant(s)

HIPPELAINEN, LASSI

Examiner

Chi-Chung E Lee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 recites the limitation “**said network element**” in **line 11**. There is **insufficient antecedent basis** for this limitation in the claim. The examiner does not know it refers to the first network element or the second network element of claim 1.

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-3, 7-9,12,14-19, 21-28,33-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Haumont (US 6,654,589 B1 A).

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As per claims 1,2, Haumont discloses a method for intercepting a target mobile station in a GPRS network, comprising the steps of:

- a) providing a first network element (i.e. a legal interception node, LIN, see figure 2A) having an interception function for intercepting data packets network [see column 3 lines 51-57];
- b) an intercepting control means (i.e. HLR, see figure 2B) implemented in a second network element and to control the interception function [see column 6 lines 34-36];
- c) a transmitting means for transmitting an intercepted data packet via said packet network to the interception gateway element (i.e. GGSN/SGSN node) and an interface means for providing an interface to the interception authority (i.e. LEA, see column 3 lines 51-58).

As per claims 3,7,8,9, Haumont discloses the LIN duplicates all uplink and downlink traffic (i.e. intercepted data packets) and forwards it to the LEA [see column 8 lines 46-67].

As per claims 12,14,15,16, Haumont discloses the interception function comprises reading data packets, analyzing the header of the data packet as to whether the data packet should be intercepted or not [see column 5 lines 4-20]. Haumont discloses the LIN duplicates all uplink and downlink traffic (i.e. intercepted data packets) and forwards it to the LEA [see column 8 lines 46-67].

As per claim 17, Haumont discloses timer (i.e. time function) is used for searching a new target MS [see column 8 lines 1-19].

As per claims 18, 19, 28, Haumont discloses a arrangement for intercepting a target mobile station in a GPRS network, comprising:

- a) a first network element (i.e. a legal interception node, LIN, see figure 2A) having an interception function for intercepting data packets and comprising a transmitting means for transmitting an intercepted data packet to said packet network [see column 3 lines 51-57];
- b) an intercepting control means (i.e. HLR, see figure 2B) implemented in a second network element and controlling the interception function [see column 6 lines 34-36;
- c) an interception gateway element (i.e. GGSN node) having a receiving means for receiving said interception data packet and an interface means (i.e. pseudo GGSN I/F, see figure 2A) for providing an interface to the interception authority (i.e. LEA, see column 3 lines 51-58).

As per claims 21,22,23, Haumont discloses the LIN duplicates all uplink and downlink traffic (i.e. intercepted data packets) and forwards it to the LEA [see column 8 lines 46-67].

As per claims 24,25, Haumont discloses the LIN is a gateway element of said network and LIN is a GGSN and SGSN [see figure 2A and column 4 lines 34-49].

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As per claims 26, 27, Haumont discloses LIN must be able to interpret GTP protocol and GPRS signaling and able to store routing contexts [see column 9 lines 2-28].

*MT
True*

Claims 33-35 have similar limitations as claims 18,24; therefore, they are rejected under the same rationale.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10,11,13,20,29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haumont (US 6,654,589 B1 A) as applied to claims, 1,18 above, and further in view of Magnusson (US 6,122,499 A).

As per claims 10,11, Haumont disclose intercepting function is implemented in the Gn interface [see figure 2C]. Haumont does not expressly disclose intercepting function comprises a packet sniffing and filtering function.

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It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the packet sniffing and filtering function within the system of Haumont because the sniffing and filtering are operations that are well known at an intercepting node to intercept those messages and select information the LEA requires [see column 8 lines 55-65]

As per claims 20, 29, Haumont does not expressly disclose the encryption processing.

Magnusson discloses the first network element further comprises an encryption means for encrypting said intercepted data packet [see column 15 lines 1-5].

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the data packet transmission using an encryption processing within the system of Haumont.

One of ordinary skill in the art would have been motivated to do this is to ensure that information transferred over the network to maintain confidential as against possible eavesdroppers which may intercept the information.

As per claims 13, 30,31,32, Haumont does not expressly disclose the detecting means for detecting a malfunction and/or breakage thereof and signaling means for signaling an alarm in response to an output of said detecting means.

It would have been obvious to a person of ordinary skill in the art at the time of invention to have been motivated to employ both the detecting means and the signaling means within the system of Haumont because it is well known in the art that a detecting

means and signaling system for a interception system provide a way for handling malfunction and debugging of the interception system.

Claim Rejections - 35 USC § 103

1. Claims 4-6 rejected under 35 U.S.C. 103(a) as being unpatentable over Haumont (US 6,654,589 B1) as applied to claim 1 above, and further in view of Provino (US 6,557,037 B1).

As per claims 4-6, Haumont does not expressly disclose the intercepted data packet is transmitted using a secure tunnel, which implemented by an encryption processing.

Provino discloses the message packets are transferred over secure tunnel.

Provino discloses the secure packet processor 26 encrypts the portions of the message packet that are to be encrypted using the encryption algorithm and key [see column 10 lines 13-44].

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the data packet transmission using a secure tunnel with encryption processing within the system of Magnusson.

One of ordinary skill in the art would have been motivated to do this is to ensure that information transferred over the network to maintain confidential as against possible eavesdroppers which may intercept the information [see Provino column 2 lines 12-35].

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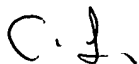
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chi-Chung E Lee whose telephone number is 703-306-4153.

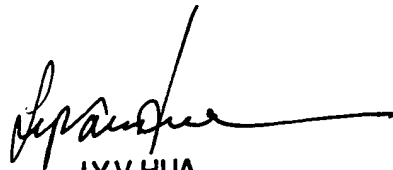
The examiner can normally be reached on 8 am - 6 pm, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Yu can be reached on 703-305-4393. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



Chi-Chung Lee
12/28/2003



LY V. HUA
PRIMARY EXAMINER